

Improving Existing Marine Protected Areas in Puget Sound

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What's an MPA?

A marine protected area is any area of the marine environment that has been reserved by Federal, State, territorial, tribal or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein (Federal Register 2000). When considered as a management tool, a marine protected area is expected to go beyond this fairly simple definition. In order to provide real value to the marine environment, an MPA should be a site that has active management, clearly defined marine conservation goals and an associated management regime to achieve the conservation goals. A manager should have baseline data on the site and a monitoring program that allows managers to know whether conservation goals are being achieved. Is a marine protected area still a marine protected area if it's a line drawn on a map and a regulation written in the law books? MPAs that look good on paper but have no real substance are often referred to as "paper" parks (MPA News 2001).

Puget Sound has national wildlife refuges, bottomfish reserves, underwater dive parks, national parks, marine preserves, research reserves, aquatic reserves and just outside Puget Sound is the Olympic Coast Sanctuary. Many of these sites sound as if they provide significant protection to marine resources. This report looks at the opportunities and challenges to making some of these existing MPAs into something greater than the sum of their parts.

The Study

The Northwest Straits Commission identified and evaluated existing MPAs in the Northwest Straits region of Puget Sound (see figure 1). Our intent was to assess the sites and determine whether meaningful protection to marine resources exists that is different than that offered outside the boundaries of the site. As part of this assessment we explored the different rationale for the sites being designated and the primary management objectives of the sites.

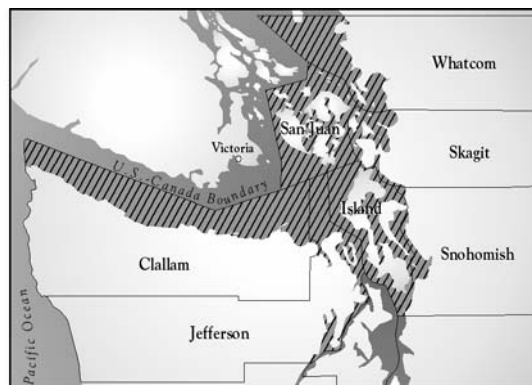


Figure 1 The Northwest Straits Region

Table 1 provides an overview of the different types of protected sites that exist within the seven counties of the Northwest Straits along with relevant information about regulatory protection. This list is not exhaustive but focuses mostly on sites managed by federal or state agencies. It also includes a few managed by marine resources committees, The Nature Conservancy and local jurisdictions. There are additional shoreline sites managed by cities, counties, tribes and land trusts that may have some protective regulations associated with them that were not included in this study.

Table 1 Some MPAs in the Northwest Straits Region

Site Type	Manager(s)	Harvest restrictions	Shoreline and/or tidelands protection	Comments	Management plan with marine goals
Aquatic Reserves: Cherry Point (Whatcom County), Fidalgo Bay and Cypress Island (Skagit County)	DNR	no	yes	Commercial lease withdrawal only Indirect benefits occur through increased research and education	Being developed
San Juan marine preserves: Argyle Lagoon, False Bay, Friday Harbor, Shaw Island, Yellow and Low islands (San Juan County)	WDFW/ FHL	yes	yes	Closed to shellfish and bottomfish harvest - WDFW Closed to collection of non-food species, except kelp - FHL Uplands and tidelands owned by UW FHL at some sites	No
Admiralty Head marine preserve (Island County)	WDFW	yes	no	Closed to all harvest except sea urchins and sea cucumbers	No
Keystone conservation area (Island County)	WDFW	yes	no	Closed to all harvest	No
Special management fishery areas: Haro Strait, Upright and San Juan channel (San Juan County)	WDFW	yes	no	Areas closed to commercial sea cucumber and sea urchin harvest	No
Underwater parks: Deception Pass and Fort Casey (Island County) and Fort Worden (Jefferson County)	WA Parks	yes	no	Areas closed to harvest of seaweed and non-food fish species (this is a catch all for marine invertebrates such as sea stars, sand dollars, etc.).	No
Edmonds Underwater Park/Brackett's Landing Shoreline Sanctuary (Snohomish County)	City of Edmonds, WDFW	yes	yes	The underwater park is a fully protected marine reserve with no take of any species allowed. The tidelands are withdrawn from leasing.	No
Padilla Bay National Estuarine Research Reserve (Skagit County)	Ecology	no	yes	There are no specific regulations associated with the NERR to protect marine life. Focus is on research and education. Indirect benefits occur through special status as NERR and shoreline of statewide significance.	Being developed
San Juan National Wildlife Refuge complex: 82 separate sites (mostly San Juan County)	USFWS	no	yes	USFWS has no jurisdiction below high water mark but does have an advisory marine buffer of 200 yards to keep boating activity away from the refuge site. Uplands are regulated to prohibit public access.	No

Privately held sites: Chuckanut Island, Dabob Bay, Ebey's Landing, Foulweather Bluff, Port Susan Bay, Waldron Island	TNC	no	yes	The Nature Conservancy has title to the tidelands at these sites as well as ownership of the adjacent uplands. The management goal is for conservation but the organization has no regulatory authority.	No
Privately held sites: Deadman Island, Goose Island, Jack Island, Sentinel Island and Yellow Island	TNC	no	yes	TNC has either ownership or easements on these upland sites but no title to the adjacent tidelands. Indirect benefits occur from conservation status of the uplands.	No
Voluntary Bottomfish Recovery Areas: 8 sites (San Juan County)	San Juan MRC	no	no	These sites are designated by the San Juan County Board of County Commissioners to discourage fishing for bottomfish. On-the-water education is the primary enforcement tool.	Yes
National Historic Park: American Camp and English Camp (San Juan County)	NPS	no	yes	No harvest on park-owned tidelands (except shellfishing allowed at English Camp under WDFW regulations). Together these parks have 7 miles of shoreline that is managed for conservation and cultural preservation.	No
San Juan Marine Biological Preserve (San Juan County)	UW FHL	yes	no	No harvest except for food fish and kelp in all of San Juan County and Cypress Island.	No
No-Anchor Zone (Jefferson County)	Jefferson MRC	no	no	No-anchor area established as a voluntary program to protect eelgrass.	No
Iceberg Point, Point Colville, Watmough Bay, Patos, Turn Island (San Juan County)	BLM	no	yes	Upland areas and shoreline are managed for conservation purposes.	No
Protection Island Seabird Sanctuary (Jefferson County)	USFWS, DNR, WDFW	yes	yes	Upland areas are managed as seabird sanctuary and protected from development. Bedlands are withdrawn indefinitely from incompatible activities (leasing).	No
Tongue Point Marine Life Sanctuary (Clallam County)	Clallam County	yes	yes	Tidelands are withdrawn by DNR. Removing intertidal marine life is prohibited.	No

BLM = Bureau of Land Management

DNR = Department of Natural Resources

WDFW = Washinton Department of Fish and Wildlife

NPS = National Park Service

USFWS = US Fish and Wildlife Service

TNC = The Nature Conservancy

MRC = Marine Resources Committee

UW FHL = University of Washington's Friday Harbor Laboratory

The following management tools are important to consider in looking at the conservation values and potential of an individual site:

Harvest Restrictions

At some sites, harvest restrictions are applied to individual species or groups of species, such as unidentified marine invertebrates. More comprehensive harvest restrictions exist at the Edmonds Underwater Dive Park. This fully protected marine park is now the home of some of the largest ling cod and rockfish in Puget Sound. The bottomfish recovery sites in San Juan County and the eelgrass protection zone in Jefferson County were established on a voluntary basis. The community uses education to gain compliance. Many sites in the table have no harvest restrictions at all.

Shoreline Habitat Protection

Some of the sites exist fully within marine waters (e.g. special management fishery areas, bottomfish reserves) but many others are terrestrial-based with significant shoreline and shallow water components. Public ownership of a shoreline site may or may not result in conservation of the shoreline. Public sites may be subjected to intense public use and some development such as boat ramps, stairs, buildings, campgrounds, etc. Some sites may have specific provisions or designations that enhance protection to the shoreline such as no access sites or building limitations.

Tideland Ownership and Lease Withdrawals

Ownership and control of tidelands is an important component to protecting a shoreline site. Tidelands may be owned by a different party than the adjacent shoreline site and can be used or leased for activities that are incompatible with conservation objectives of a marine protected area. Some tidelands have been withdrawn from future leasing opportunities by the Washington Department of Natural Resources. These withdrawals are noted in the comments section of Table 1.

Marine-focused Management Goals

Many of the sites identified in Table 1 were designated and purchased for their terrestrial values rather than their marine values, yet they have significant marine shoreline associated with their sites. Refuge sites managed by US Fish and Wildlife Service were designated and continue to be managed for the protection of marine bird habitat. This emphasis on terrestrial protection is also true for Yellow Island owned by The Nature Conservancy, the National Historic Park owned by US Park Service and many other sites.

Partnering Authorities and Programs

Site managers may not have the authority to take actions needed to address threats to marine life that occur at their site or in adjacent marine waters, but establish partnerships with other agencies or groups to fill that gap. Protection Island, a seabird sanctuary in Jefferson County is jointly managed by WDFW and USFWS. The two agencies both conduct research, monitoring and some enforcement at the site. Adjacent tidelands were withdrawn from future leasing by DNR. Edmonds Underwater Park has harvest regulations set by WDFW and active patrolling by the City of Edmonds. The City of Edmonds Beach Ranger and City police officers can enforce all park regulations. Volunteers provide weekly maintenance and upkeep to the dive park.

Enforcement and Management Presence

Most sites have very limited enforcement because of funding limitations and the distance required to travel from agency offices to the San Juans. For example, USFWS refuge staff are located in Port Angeles, an all day trip to the San Juans involving two ferry rides. Having someone present at a protected site, regardless of whether they have enforcement authorities, can contribute greatly to improving how visitors behave at a site. Yellow Island is owned by The Nature Conservancy and has a steward on the island most of the year. This steward provides interpretive information to many boaters who are out on the water and advises many fishermen about agency harvest restrictions and access restrictions in nearby waters. Many people are willing to adjust their activities when asked to do so (Green 2004, Koski 2004). The San Juan Marine Resources Committee has employed on-the-water education to support its' bottomfish recovery areas.

Some locals feel that the voluntary restrictions to these areas have better compliance rates than those sites that have regulations but no active enforcement.

Getting to Marine Conservation

Once we identified and evaluated existing MPAs, we narrowed the study further to look specifically at San Juan County. This study area was chosen because of the abundance of conservation-oriented sites in the County (see Figure 2). Nearly every state natural resource agency owns some piece of shoreline in San Juan County as well as several federal agencies and the University of Washington's Friday Harbor Laboratory which has significant shoreline holdings and a role in managing the marine waters. There's also an active marine resources committee that created 8 bottomfish recovery areas and a marine stewardship area that encompasses all county waters. Table 2 provides an overview of these sites as well as some overlying authorities.

The sheer magnitude of conservation-oriented shoreline holdings, the intense involvement of the local community in marine conservation issues and the incredible richness of the marine ecosystem make this an ideal area for networking sites and improving conservation objectives. The county itself designated no-wake areas and the whale watching industry established whale watching exclusion zones. The whole complex offers significant opportunities to improve protection to the marine resources in the region, if the existing sites could be managed more actively and effectively and include some new provisions to address marine resource issues.

The majority of sites have few regulatory and/or management tools in place that offer protection to marine species and habitats. Marine managed areas exist completely in the marine environment but most are terrestrial-based sites that have significant shoreline and nearshore components. Another challenge is that the existing MPAs were designated for a variety of purposes and are managed within the limited scope of the original objectives. In other words, many of these sites have very narrow conservation objectives. So even if the existing regulations were fully enforced, the conservation values are limited (Broadhurst 2004).

The 82 National Wildlife Refuge sites in the San Juan refuge complex exist to protect marine birds and even though they are well positioned to protect adjacent marine habitats and other marine species, they were not established for that purpose.

The National Historic Park, with nearly 7 miles of shoreline exists because of its cultural and historic values. The current management plan contains no goals for protecting the shoreline habitats or tidelands.

Patos Island is owned entirely by the Bureau of Land Management which is responsible for managing the island only above ordinary high water mark and therefore has no management goals or objectives for the adjacent marine habitats or waters.

These examples illustrate limitations, but within each example also lies an opportunity to change the existing management paradigm and involve the site and the managers into marine conservation planning. The refuge complex is undergoing a Comprehensive Conservation Planning process that provides an opportunity for the public to comment on current management of the sites (Ryan 2004). There are also opportunities for some or all of the refuge sites to be managed in partnership with other agencies as has been done with Protection Island.

The National Historic Park also has regular updates to its management plan and is willing to consider changes to provide increased protection to the shoreline and tidelands where the Park has ownership (Dederich 2004). The Park is one of a few sites that have staff present on-site who can also provide an increased level of education focused on the marine environment to visitors on land.

Bureau of Land Management could also enter into partnerships with agencies or local groups to provide increased presence and stewardship on their sites. They have partnered with Washington State Parks at a few sites for managing recreational use of the site. This type of partnership could also exist for conservation purposes.

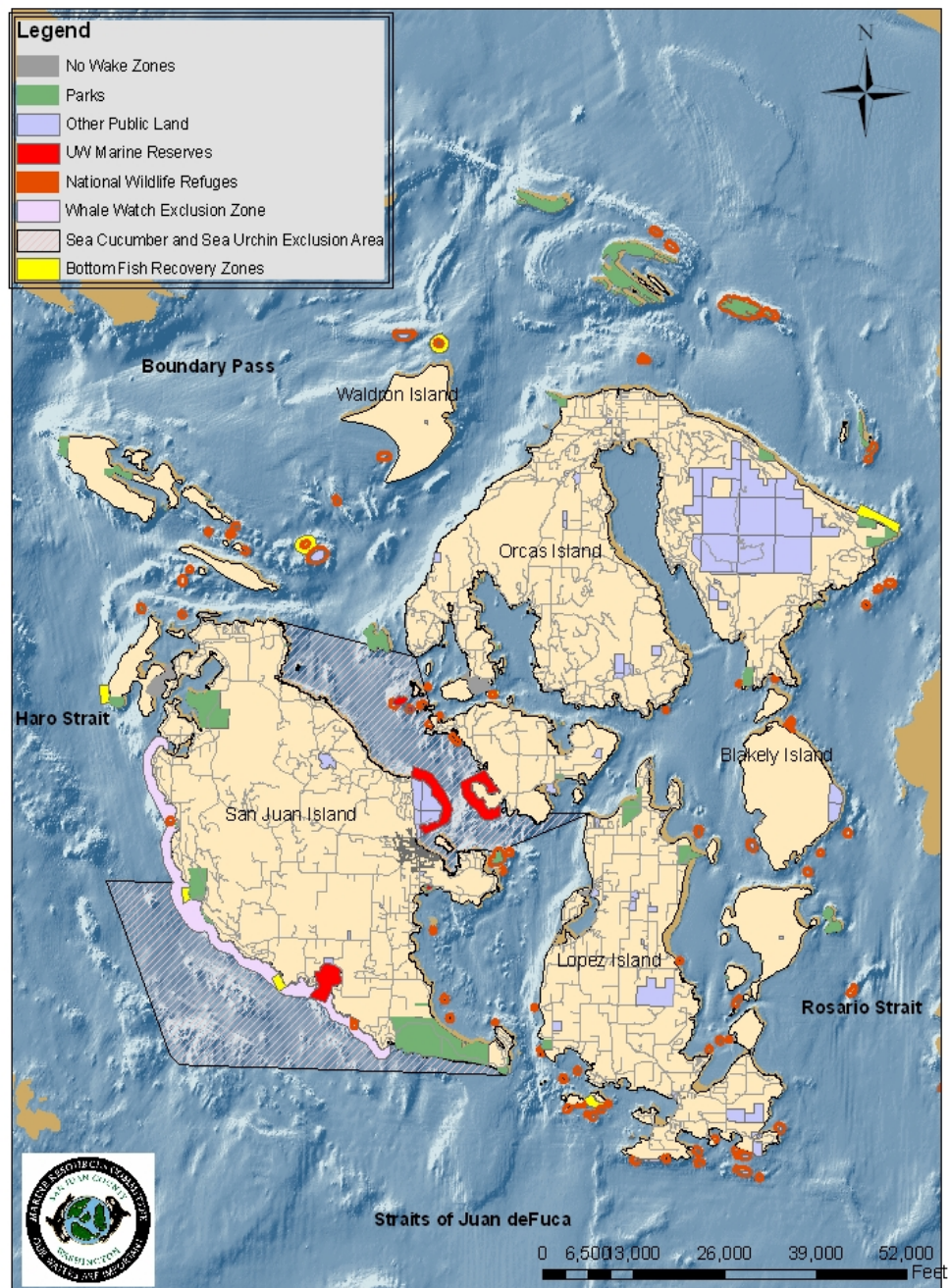


Figure 2 Some Marine Protected Areas in San Juan County (Slocumb 2005)

Table 2. Various protected sites and authorities in San Juan County

AGENCY/LANDOWNER	SITE(S)	MARINE BUFFER	AUTHORITIES	PRIMARY MANAGEMENT OBJECTIVE
Bureau of Land Management	Turn Pt, Pt Colville -Watmough Bay, Patos Island, Iceberg Pt. and others	No	above high water only	Some sites are Areas of Critical Environmental Concern
US Fish and Wildlife Service	82 sites	200 yd	above high water only buffer is advisory	Protect marine birds
National Park Service	National Historic Park (American Camp/English Camp)	No	extends into tidelands	Historical and cultural protection
The Nature Conservancy	Goose Island, Deadman Island, Sentinel Island, Yellow Island, Pt. Disney and Cowlitz Bay on Waldron	No	property owner	site dependent
County Parks	Agate Beach, Blackie Brady Park, Eagle Cove, Eastsound, Odlin Park, Otis Perkins Park, Reuben Tarte Park, South Beach		above high water only	recreation
WA State Parks	13 sites at Matia, Patos, Stuart, Sucia, Spencer Spit, etc.		significant in intertidal, not fully asserted	recreation
UW Friday Harbor Labs	Marine preserves at Argyle Lagoon, False Bay, Friday Harbor, Southwest Shaw Island, Yellow and Low Islands	No	property owner	maintain sites for research purposes
San Juan Co. Land Bank	various	No	property owner	land conservation
San Juan Pres Trust	various	No	property owner	land conservation
WDFW	Portions of San Juan and Upright channels and Haro Strait	No	Harvest related	sea urchin and sea cucumber protection
WDFW	Bottomfish closures at Argyle Lagoon, False Bay, Friday Harbor, SW Shaw Island, Yellow and Low Islands	No	Harvest related	bottomfish recovery
WA DNR	Cypress Island aquatic reserve, numerous shoreline sites, various tidelands and all bedlands	No	proprietary authority for tidelands and bedlands	habitat conservation
Whale Watching Assoc.	Whale watching exclusion zone	No	none	orca protection
San Juan County	Pt. Lawrence, Bell Island, Charles Island, Pile Pt., Deadman Bay, Kellet Bluff, Gull Rock, Bare Island	No	none	bottomfish protection
COUNTY-WIDE OR REGIONAL AUTHORITIES				
	<u>Regulation/Authority</u>			
WDFW/TREATY TRIBES	Co-managers of fisheries and fish habitat		Harvest related	Maintain sustainable fishery
Friday Harbor Labs	Harvest restrictions on non-food species		Harvest related	Maintain ecological integrity
NOAA Fisheries	Marine Mammal protection		MMPA	Protect marine mammals
San Juan County	Jet Ski Ban			Prevent noise disturbance

Working with Managers

The next phase of the project was focused on talking to managers of existing MPAs. The Northwest Straits Commission hosted a two day work session for the managers of all the sites listed in Table 2. The purpose of the work session was to bring managers together to identify opportunities for improving management strategies at existing protected sites in the San Juan archipelago. Thirty five people representing 16 different organizations participated in the work session.

The work session provided an opportunity for site managers to meet each other and members of local marine conservation organizations and consider their management objectives in a larger context. The managers learned about the work of the San Juan marine resources committee and the county-wide marine stewardship area and discussed ways in which individual agencies could support the goals of the marine stewardship area. Participants also acknowledged current challenges to site management and discussed some opportunities for improvements.

Many participants pledged to consider new management strategies for their sites. There was strong interest in holding follow up work sessions to continue the dialogue that began in November 2004. Much more follow up work needs to be done with individual managers to address needs at individual sites and consider best strategies for accomplishing change. Many issues, such as data needs, human impacts, stresses and threats etc. are beyond the scope of this paper but were acknowledged at the Work Session and also need additional follow-up. A summary of the work session is available at www.nwstraits.org.

Summary and Recommendations

This project identified marine protected areas, worked with individual site managers and brought all the marine protected area managers together in San Juan County. This effort identified opportunities that were not previously recognized and took the first step towards inspiring managers and improving site management. We plan to make many more steps forward. Thanks are due to the many people involved in putting together and attending the San Juan Marine Site Managers Work Session.

This project has applications elsewhere. There are efforts to develop networks of MPAs in Puget Sound and elsewhere. When looking at the conservation potential of a region, it is imperative to involve managers and have them identify needs and opportunities. It is important to initially evaluate not only the utility of the existing sites, but the opportunities to make something real out of them, before drawing new lines on maps. MPAs are a tool that can offer valuable opportunities for habitat and species protection if managed well. In the absence of active management and on-going monitoring, a hodge-podge of uncoordinated sites as currently exists in San Juan County leads to public confusion, misuse of sites and missed opportunities.

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